

TDMS No. 88006 - 03

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: RATS/F 344

P03: INCIDENCE RATES OF NON-NEOPLASTIC LESIONS BY ANATOMIC SITE(a)

ALPHA-METHYLSTYRENE

CAS Number: 98-83-9

Pathologist: RENNE, R.

Revised F1

Date Report Reqsted: 02/02/2006

Time Report Reqsted: 13:44:41

First Dose M/F: 08/06/01 / 08/06/01

Lab: BNW

C Number: C88006B

Lock Date: 03/26/2004

Cage Range: ALL

Date Range: ALL

Reasons For Removal: ALL

Removal Date Range: ALL

Treatment Groups: Include ALL

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FISCHER 344 RATS MALE	CONTROL	100 PPM	300 PPM	1000 PPM
Disposition Summary				
Animals Initially in Study	50	50	50	50
Early Deaths				
Accidently Killed			1	1
Moribund Sacrifice	19	15	21	25
Natural Death	4	3	5	2
Survivors				
Natural Death				1
Terminal Sacrifice	27	32	23	21
Animals Examined Microscopically	50	50	50	50
ALIMENTARY SYSTEM				
Intestine Large, Cecum	(48)	(47)	(46)	(47)
Ulcer		1 (2%)		
Epithelium, Atrophy		1 (2%)		
Intestine Small, Duodenum	(49)	(48)	(47)	(47)
Ulcer		1 (2%)		
Intestine Small, Jejunum	(46)	(47)	(44)	(47)
Inflammation, Chronic Active		1 (2%)		
Epithelium, Ulcer		1 (2%)		
Liver	(50)	(50)	(50)	(50)
Angiectasis		1 (2%)	1 (2%)	4 (8%)
Basophilic Focus	2 (4%)	8 (16%)	3 (6%)	1 (2%)
Basophilic Focus, Multiple		1 (2%)		
Bile Stasis		1 (2%)		
Clear Cell Focus	8 (16%)	7 (14%)	5 (10%)	3 (6%)
Clear Cell Focus, Multiple	1 (2%)			
Degeneration, Cystic	2 (4%)	2 (4%)	3 (6%)	1 (2%)
Hemorrhage				1 (2%)
Hepatodiaphragmatic Nodule		2 (4%)	5 (10%)	10 (20%)
Necrosis	2 (4%)	2 (4%)	3 (6%)	4 (8%)
Thrombosis		1 (2%)	1 (2%)	1 (2%)
Vacuolization Cytoplasmic	3 (6%)	1 (2%)	4 (8%)	
Bile Duct, Dilatation		2 (4%)		
Bile Duct, Hyperplasia	30 (60%)	42 (84%)	39 (78%)	30 (60%)
Mesentery	(15)	(15)	(8)	(5)
Necrosis	15 (100%)	14 (93%)	8 (100%)	5 (100%)

a - Number of animals examined microscopically at site and number of animals with lesion

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FISCHER 344 RATS MALE	CONTROL	100 PPM	300 PPM	1000 PPM
Fat, Hemorrhage		1 (7%)		
Oral Mucosa	(1)	(0)	(0)	(1)
Gingival, Hyperplasia, Squamous, Focal	1 (100%)			1 (100%)
Pancreas	(50)	(50)	(50)	(50)
Acinus, Atrophy	2 (4%)	2 (4%)	1 (2%)	
Stomach, Forestomach	(50)	(50)	(49)	(50)
Hyperplasia, Squamous	1 (2%)		1 (2%)	1 (2%)
Inflammation, Suppurative				1 (2%)
Necrosis	1 (2%)			
Ulcer	4 (8%)	1 (2%)	2 (4%)	
Epithelium, Mineralization		1 (2%)		
Stomach, Glandular	(50)	(50)	(49)	(50)
Erosion	2 (4%)		2 (4%)	3 (6%)
Ulcer	1 (2%)			
Epithelium, Mineralization		1 (2%)		
Tongue	(0)	(1)	(0)	(1)
Epithelium, Hyperplasia				1 (100%)
Tooth	(0)	(0)	(2)	(0)
Inflammation, Suppurative			1 (50%)	
Peridental Tissue, Inflammation			1 (50%)	
CARDIOVASCULAR SYSTEM				
Blood Vessel	(0)	(1)	(2)	(0)
Pulmonary Artery, Infiltration Cellular, Polymorphonuclear			1 (50%)	
Pulmonary Artery, Mineralization			1 (50%)	
Heart	(50)	(50)	(50)	(50)
Cardiomyopathy	7 (14%)	3 (6%)	4 (8%)	6 (12%)
Atrium, Myocardium, Hypertrophy		1 (2%)		
Atrium, Necrosis				1 (2%)
Atrium, Thrombosis	3 (6%)	1 (2%)	5 (10%)	5 (10%)
Myocardium, Hypertrophy		1 (2%)		
Valve, Thrombosis	1 (2%)			
ENDOCRINE SYSTEM				
Adrenal Cortex	(50)	(50)	(50)	(50)
Atrophy	1 (2%)	1 (2%)		
Hyperplasia	14 (28%)	10 (20%)	12 (24%)	9 (18%)

a - Number of animals examined microscopically at site and number of animals with lesion

FISCHER 344 RATS MALE	CONTROL	100 PPM	300 PPM	1000 PPM
Hypertrophy	2 (4%)	2 (4%)		
Mineralization	1 (2%)			
Necrosis			1 (2%)	
Vacuolization Cytoplasmic	9 (18%)	21 (42%)	10 (20%)	5 (10%)
Adrenal Medulla	(50)	(50)	(50)	(50)
Atrophy	1 (2%)			
Hyperplasia	15 (30%)	13 (26%)	9 (18%)	14 (28%)
Islets, Pancreatic	(50)	(50)	(50)	(50)
Hyperplasia	1 (2%)	3 (6%)		
Parathyroid Gland	(47)	(49)	(48)	(47)
Hyperplasia	1 (2%)		1 (2%)	
Pituitary Gland	(49)	(49)	(49)	(49)
Cyst		1 (2%)	1 (2%)	1 (2%)
Hemorrhage		1 (2%)		
Hyperplasia	9 (18%)	8 (16%)	6 (12%)	14 (29%)
Thyroid Gland	(49)	(50)	(50)	(50)
Cyst				1 (2%)
C-cell, Hyperplasia	8 (16%)	9 (18%)	9 (18%)	6 (12%)
Follicle, Cyst				1 (2%)
Follicular Cell, Hyperplasia		3 (6%)	1 (2%)	2 (4%)
GENERAL BODY SYSTEM				
Peritoneum	(0)	(2)	(0)	(3)
GENITAL SYSTEM				
Epididymis	(50)	(50)	(50)	(50)
Penis	(1)	(0)	(0)	(0)
Inflammation, Chronic Active	1 (100%)			
Preputial Gland	(50)	(50)	(50)	(50)
Cyst	1 (2%)	2 (4%)	2 (4%)	1 (2%)
Hyperplasia	2 (4%)	4 (8%)	1 (2%)	2 (4%)
Inflammation, Suppurative			1 (2%)	
Prostate	(50)	(50)	(50)	(50)
Cyst			1 (2%)	
Hyperplasia	6 (12%)		1 (2%)	2 (4%)
Inflammation, Suppurative	34 (68%)	35 (70%)	31 (62%)	24 (48%)
Seminal Vesicle	(50)	(50)	(50)	(50)
Cyst			1 (2%)	

FISCHER 344 RATS MALE	CONTROL	100 PPM	300 PPM	1000 PPM
Dilatation			1 (2%)	
Inflammation, Suppurative		1 (2%)	1 (2%)	
Testes	(50)	(50)	(50)	(50)
Artery, Inflammation, Chronic Active			1 (2%)	
Germinal Epithelium, Atrophy	5 (10%)	5 (10%)	8 (16%)	6 (12%)
Germinal Epithelium, Mineralization		1 (2%)		
Interstitial Cell, Hyperplasia	6 (12%)	7 (14%)	10 (20%)	7 (14%)
HEMATOPOIETIC SYSTEM				
Bone Marrow	(50)	(50)	(50)	(50)
Lymph Node	(6)	(3)	(6)	(12)
Deep Cervical, Hemorrhage				1 (8%)
Lymph Node, Bronchial	(10)	(8)	(14)	(15)
Hyperplasia, Histiocytic			1 (7%)	
Infiltration Cellular, Histiocyte			1 (7%)	
Lymph Node, Mediastinal	(17)	(25)	(20)	(18)
Angiectasis	1 (6%)		1 (5%)	
Hemorrhage		1 (4%)		
Hyperplasia, Lymphoid		2 (8%)		1 (6%)
Infiltration Cellular, Histiocyte			1 (5%)	
Pigmentation			1 (5%)	1 (6%)
Lymph Node, Mesenteric	(50)	(49)	(49)	(50)
Spleen	(50)	(50)	(49)	(50)
Accessory Spleen	1 (2%)		1 (2%)	1 (2%)
Fibrosis	2 (4%)	1 (2%)	1 (2%)	1 (2%)
Hematopoietic Cell Proliferation	1 (2%)	1 (2%)		
Hemorrhage		1 (2%)		2 (4%)
Hyperplasia, Lymphoid		1 (2%)		1 (2%)
Necrosis	3 (6%)	3 (6%)	5 (10%)	8 (16%)
Thymus	(42)	(49)	(47)	(47)
Cyst		1 (2%)		
Inflammation			1 (2%)	
Thrombosis			1 (2%)	
INTEGUMENTARY SYSTEM				
Mammary Gland	(48)	(49)	(50)	(50)
Galactocele	2 (4%)	1 (2%)	3 (6%)	2 (4%)
Hyperplasia		1 (2%)		

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FISCHER 344 RATS MALE	CONTROL	100 PPM	300 PPM	1000 PPM
Skin	(50)	(50)	(50)	(50)
Cyst Epithelial Inclusion	2 (4%)	3 (6%)		
Hyperkeratosis		2 (4%)	1 (2%)	2 (4%)
Hyperplasia, Squamous		1 (2%)		
Inflammation, Chronic		1 (2%)	1 (2%)	
Ulcer	1 (2%)	2 (4%)	2 (4%)	3 (6%)
Subcutaneous Tissue, Metaplasia, Osseous			1 (2%)	
Subcutaneous Tissue, Mineralization	1 (2%)			
MUSCULOSKELETAL SYSTEM				
Bone	(50)	(50)	(50)	(50)
Hyperostosis	1 (2%)			
Maxilla, Fracture			1 (2%)	
Skeletal Muscle	(2)	(1)	(1)	(0)
NERVOUS SYSTEM				
Brain	(50)	(50)	(50)	(50)
Compression	11 (22%)	11 (22%)	8 (16%)	2 (4%)
Gliososis				1 (2%)
Hemorrhage	7 (14%)	2 (4%)	4 (8%)	2 (4%)
Cerebrum, Demyelination, Focal				1 (2%)
Cerebrum, Necrosis, Focal	1 (2%)			
Choroid Plexus, Hemorrhage			1 (2%)	
Meninges, Hemorrhage				1 (2%)
RESPIRATORY SYSTEM				
Larynx	(50)	(49)	(50)	(50)
Foreign Body	4 (8%)	5 (10%)	2 (4%)	5 (10%)
Inflammation, Suppurative	6 (12%)		4 (8%)	2 (4%)
Inflammation, Chronic	4 (8%)	11 (22%)	6 (12%)	10 (20%)
Epiglottis, Hyperplasia				1 (2%)
Respiratory Epithelium, Hyperplasia		2 (4%)		
Respiratory Epithelium, Metaplasia, Squamous	1 (2%)			
Lung	(50)	(50)	(50)	(50)

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FISCHER 344 RATS MALE	CONTROL	100 PPM	300 PPM	1000 PPM
Hemorrhage	7 (14%)	3 (6%)	1 (2%)	7 (14%)
Inflammation, Suppurative			1 (2%)	
Inflammation, Chronic	4 (8%)	1 (2%)	3 (6%)	2 (4%)
Thrombosis	1 (2%)			
Alveolar Epithelium, Degeneration, Mucoid, Focal			1 (2%)	
Alveolar Epithelium, Hyperplasia	3 (6%)	6 (12%)	6 (12%)	3 (6%)
Alveolus, Emphysema		2 (4%)	1 (2%)	
Alveolus, Infiltration Cellular, Histiocyte	11 (22%)	12 (24%)	10 (20%)	4 (8%)
Interstitialium, Fibrosis	3 (6%)		2 (4%)	1 (2%)
Mediastinum, Inflammation, Suppurative			1 (2%)	
Nose	(50)	(50)	(50)	(49)
Foreign Body	6 (12%)	4 (8%)	3 (6%)	2 (4%)
Hemorrhage			1 (2%)	
Inflammation, Suppurative	10 (20%)	8 (16%)	7 (14%)	5 (10%)
Inflammation, Chronic		1 (2%)	2 (4%)	
Glands, Dilatation	3 (6%)	7 (14%)	6 (12%)	
Goblet Cell, Hyperplasia	5 (10%)	5 (10%)	5 (10%)	5 (10%)
Nasolacrimal Duct, Inflammation, Suppurative	2 (4%)	1 (2%)	1 (2%)	
Nerve, Olfactory Epithelium, Degeneration				1 (2%)
Olfactory Epithelium, Degeneration	1 (2%)	3 (6%)	3 (6%)	16 (33%)
Olfactory Epithelium, Degeneration, Hyaline	1 (2%)	1 (2%)	1 (2%)	
Olfactory Epithelium, Hyperplasia, Basal Cell		17 (34%)	18 (36%)	43 (88%)
Olfactory Epithelium, Metaplasia	2 (4%)	1 (2%)	3 (6%)	2 (4%)
Respiratory Epithelium, Degeneration, Hyaline	2 (4%)		2 (4%)	
Respiratory Epithelium, Hyperplasia		1 (2%)		2 (4%)
Respiratory Epithelium, Metaplasia, Squamous				1 (2%)
Pleura	(6)	(5)	(6)	(5)
Inflammation, Chronic	5 (83%)	5 (100%)	6 (100%)	5 (100%)
Mesothelium, Hyperplasia		1 (20%)		
SPECIAL SENSES SYSTEM				
Eye	(49)	(49)	(50)	(49)
Atrophy			1 (2%)	1 (2%)

FISCHER 344 RATS MALE	CONTROL	100 PPM	300 PPM	1000 PPM
Cornea, Fibrosis				1 (2%)
Cornea, Hyperplasia, Squamous		1 (2%)		1 (2%)
Cornea, Mineralization	1 (2%)			
Lens, Cataract	3 (6%)		5 (10%)	1 (2%)
Retina, Atrophy	1 (2%)		1 (2%)	
Sclera, Metaplasia, Osseous	32 (65%)	32 (65%)	32 (64%)	25 (51%)
Harderian Gland	(50)	(50)	(50)	(50)
Inflammation, Chronic			2 (4%)	
Zymbal's Gland	(0)	(1)	(2)	(2)
Inflammation			1 (50%)	
URINARY SYSTEM				
Kidney	(50)	(50)	(50)	(50)
Cyst	2 (4%)	2 (4%)	2 (4%)	
Infarct	3 (6%)			5 (10%)
Nephropathy	41 (82%)	46 (92%)	46 (92%)	45 (90%)
Thrombosis				1 (2%)
Bilateral, Pelvis, Dilatation		1 (2%)	1 (2%)	
Bilateral, Infarct				1 (2%)
Bilateral, Infarct, Multiple				1 (2%)
Cortex, Renal Tubule, Accumulation, Hyaline Droplet			1 (2%)	1 (2%)
Glomerulus, Fibrosis	1 (2%)			
Papilla, Mineralization	12 (24%)	16 (32%)	10 (20%)	33 (66%)
Pelvis, Transitional Epithelium, Hyperplasia	1 (2%)	2 (4%)	1 (2%)	1 (2%)
Pelvis, Transitional Epithelium, Mineralization	1 (2%)			
Pelvis, Dilatation		1 (2%)	1 (2%)	
Pelvis, Hemorrhage			1 (2%)	
Renal Tubule, Casts		1 (2%)		
Renal Tubule, Mineralization		1 (2%)		
Urinary Bladder	(50)	(50)	(50)	(50)
Calculus Micro Observation Only	2 (4%)	1 (2%)	1 (2%)	1 (2%)
Cyst			1 (2%)	
Hemorrhage	1 (2%)	2 (4%)	2 (4%)	1 (2%)
Inflammation, Suppurative	1 (2%)			
Inflammation, Chronic		1 (2%)		
Necrosis			2 (4%)	
Transitional Epithelium, Hyperplasia	1 (2%)	2 (4%)	1 (2%)	2 (4%)

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FISCHER 344 RATS MALE	CONTROL	100 PPM	300 PPM	1000 PPM

*** END OF MALE ***

FISCHER 344 RATS FEMALE	CONTROL	100 PPM	300 PPM	1000 PPM
Disposition Summary				
Animals Initially in Study	50	50	50	50
Early Deaths				
Accidently Killed	2			
Moribund Sacrifice	15	21	12	20
Natural Death	6	5	2	4
Survivors				
Terminal Sacrifice	27	24	36	26
Animals Examined Microscopically	50	50	50	50
ALIMENTARY SYSTEM				
Intestine Large, Rectum	(49)	(48)	(50)	(50)
Intestine Small, Ileum	(45)	(46)	(48)	(47)
Necrosis		1 (2%)		
Intestine Small, Jejunum	(45)	(46)	(48)	(48)
Diverticulum		2 (4%)		
Liver	(50)	(50)	(50)	(50)
Angiectasis	3 (6%)	1 (2%)	2 (4%)	1 (2%)
Basophilic Focus	21 (42%)	23 (46%)	21 (42%)	21 (42%)
Basophilic Focus, Multiple	5 (10%)	5 (10%)	10 (20%)	8 (16%)
Clear Cell Focus	6 (12%)	6 (12%)	6 (12%)	2 (4%)
Clear Cell Focus, Multiple	3 (6%)		1 (2%)	
Eosinophilic Focus	1 (2%)		2 (4%)	1 (2%)
Hematopoietic Cell Proliferation				1 (2%)
Hepatodiaphragmatic Nodule	2 (4%)	6 (12%)	6 (12%)	7 (14%)
Inflammation, Suppurative			1 (2%)	
Necrosis	2 (4%)	1 (2%)	3 (6%)	1 (2%)
Thrombosis	1 (2%)		1 (2%)	
Vacuolization Cytoplasmic	8 (16%)	5 (10%)	1 (2%)	
Bile Duct, Bile Stasis	1 (2%)			
Bile Duct, Hyperplasia			2 (4%)	
Hepatocyte, Regeneration			1 (2%)	
Serosa, Fibrosis			1 (2%)	
Mesentery	(14)	(17)	(12)	(10)
Necrosis	14 (100%)	17 (100%)	12 (100%)	10 (100%)
Oral Mucosa	(1)	(0)	(1)	(0)
Inflammation, Suppurative	1 (100%)			

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FISCHER 344 RATS FEMALE	CONTROL	100 PPM	300 PPM	1000 PPM
Pancreas	(50)	(50)	(50)	(50)
Acinus, Atrophy	1 (2%)			
Duct, Cyst		1 (2%)		
Stomach, Forestomach	(50)	(50)	(50)	(50)
Diverticulum		1 (2%)		
Hyperplasia, Squamous		4 (8%)	2 (4%)	2 (4%)
Inflammation, Suppurative				1 (2%)
Ulcer	5 (10%)	5 (10%)	3 (6%)	2 (4%)
Epithelium, Muscularis, Inflammation, Suppurative		1 (2%)		
Stomach, Glandular	(49)	(50)	(50)	(50)
Erosion	2 (4%)			2 (4%)
Hyperplasia				1 (2%)
Ulcer		1 (2%)	1 (2%)	
Tongue	(0)	(1)	(2)	(0)
Epithelium, Hyperplasia		1 (100%)	1 (50%)	
CARDIOVASCULAR SYSTEM				
Blood Vessel	(0)	(1)	(0)	(1)
Infiltration Cellular, Polymorphonuclear		1 (100%)		
Inflammation				1 (100%)
Thrombosis				1 (100%)
Heart	(50)	(50)	(50)	(50)
Cardiomyopathy			1 (2%)	
Atrium, Thrombosis	1 (2%)	1 (2%)		
ENDOCRINE SYSTEM				
Adrenal Cortex	(50)	(50)	(50)	(50)
Angiectasis	3 (6%)			
Hyperplasia	7 (14%)	5 (10%)	10 (20%)	8 (16%)
Hypertrophy		1 (2%)		2 (4%)
Necrosis	1 (2%)	1 (2%)	1 (2%)	
Thrombosis				1 (2%)
Vacuolization Cytoplasmic	18 (36%)	18 (36%)	18 (36%)	12 (24%)
Adrenal Medulla	(49)	(50)	(50)	(50)
Hemorrhage		1 (2%)		
Hyperplasia			2 (4%)	3 (6%)
Islets, Pancreatic	(50)	(50)	(50)	(50)

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Pituitary Gland	(50)	(49)	(50)	(50)
Cyst	4 (8%)	5 (10%)	3 (6%)	2 (4%)
Hemorrhage	2 (4%)		1 (2%)	1 (2%)
Hyperplasia	7 (14%)	8 (16%)	8 (16%)	14 (28%)
Thyroid Gland	(50)	(50)	(50)	(50)
C-cell, Hyperplasia	8 (16%)	5 (10%)	9 (18%)	6 (12%)
Follicle, Cyst				1 (2%)
Follicular Cell, Hyperplasia				2 (4%)
GENERAL BODY SYSTEM				
None				
GENITAL SYSTEM				
Clitoral Gland	(50)	(50)	(50)	(50)
Cyst	2 (4%)			
Hyperplasia	7 (14%)	6 (12%)	3 (6%)	4 (8%)
Inflammation, Chronic	2 (4%)		1 (2%)	
Ovary	(50)	(50)	(50)	(50)
Atrophy	1 (2%)			
Cyst	9 (18%)	2 (4%)	9 (18%)	8 (16%)
Uterus	(50)	(50)	(50)	(50)
Cyst			1 (2%)	
Hemorrhage	1 (2%)	1 (2%)	1 (2%)	2 (4%)
Hydrometra			1 (2%)	
Necrosis	1 (2%)			
Thrombosis			1 (2%)	1 (2%)
Cervix, Myometrium, Hyperplasia	2 (4%)			
Endometrium, Hyperplasia	6 (12%)	3 (6%)	4 (8%)	5 (10%)
Endometrium, Inflammation, Suppurative			1 (2%)	
Myometrium, Hyperplasia		1 (2%)		
Vagina	(0)	(1)	(0)	(1)
Infiltration Cellular, Mixed Cell				1 (100%)
HEMATOPOIETIC SYSTEM				
Lymph Node	(2)	(3)	(2)	(5)
Inflammation, Chronic Active				1 (20%)

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Lab: BNW

FISCHER 344 RATS FEMALE	CONTROL	100 PPM	300 PPM	1000 PPM
Pancreatic, Hemorrhage			1 (50%)	
Lymph Node, Bronchial	(4)	(7)	(8)	(3)
Angiectasis	1 (25%)			
Congestion	1 (25%)			
Hemorrhage				1 (33%)
Hyperplasia, Lymphoid	1 (25%)	1 (14%)	1 (13%)	
Lymph Node, Mandibular	(3)	(0)	(1)	(1)
Lymph Node, Mediastinal	(26)	(25)	(21)	(28)
Hyperplasia, Lymphoid			1 (5%)	
Pigmentation				1 (4%)
Lymph Node, Mesenteric	(50)	(50)	(50)	(50)
Congestion	1 (2%)			
Spleen	(50)	(50)	(50)	(50)
Accessory Spleen		1 (2%)		
Fibrosis	1 (2%)		2 (4%)	1 (2%)
Hematopoietic Cell Proliferation	2 (4%)	2 (4%)	2 (4%)	3 (6%)
Pigmentation				1 (2%)
Thymus	(50)	(48)	(48)	(48)
Cyst		1 (2%)		
INTEGUMENTARY SYSTEM				
Mammary Gland	(50)	(50)	(50)	(50)
Galactocele	2 (4%)	3 (6%)	4 (8%)	1 (2%)
Inflammation, Suppurative		1 (2%)	1 (2%)	
Necrosis				1 (2%)
Duct, Cyst				1 (2%)
Epithelium, Hyperplasia	1 (2%)			
Skin	(50)	(50)	(50)	(50)
Cyst Epithelial Inclusion		1 (2%)		
Hyperkeratosis	1 (2%)	1 (2%)		
Inflammation, Chronic				1 (2%)
Ulcer		1 (2%)	3 (6%)	1 (2%)
Subcutaneous Tissue, Hemorrhage				1 (2%)
Subcutaneous Tissue, Inflammation, Granulomatous		1 (2%)		
MUSCULOSKELETAL SYSTEM				
Bone	(50)	(50)	(50)	(50)

a - Number of animals examined microscopically at site and number of animals with lesion

FISCHER 344 RATS FEMALE	CONTROL	100 PPM	300 PPM	1000 PPM
Maxilla, Fracture	1 (2%)			
Skeletal Muscle	(2)	(1)	(0)	(0)
Infiltration Cellular, Lipocyte	1 (50%)			
NERVOUS SYSTEM				
Brain	(50)	(50)	(50)	(50)
Compression	7 (14%)	7 (14%)	11 (22%)	8 (16%)
Hemorrhage	6 (12%)	4 (8%)	5 (10%)	1 (2%)
Cerebellum, Hydrocephalus		1 (2%)		
Cerebrum, Infiltration Cellular, Mononuclear Cell, Focal	1 (2%)			
RESPIRATORY SYSTEM				
Larynx	(50)	(50)	(50)	(50)
Foreign Body	1 (2%)	1 (2%)	2 (4%)	3 (6%)
Inflammation, Suppurative	2 (4%)		1 (2%)	
Inflammation, Chronic	1 (2%)	1 (2%)		4 (8%)
Epiglottis, Metaplasia, Squamous	1 (2%)			1 (2%)
Respiratory Epithelium, Hyperplasia	1 (2%)	1 (2%)	2 (4%)	2 (4%)
Respiratory Epithelium, Metaplasia, Squamous			1 (2%)	
Lung	(50)	(50)	(50)	(50)
Hemorrhage	1 (2%)		1 (2%)	1 (2%)
Infiltration Cellular, Polymorphonuclear		1 (2%)		
Inflammation, Suppurative			1 (2%)	
Inflammation, Granulomatous		1 (2%)		
Inflammation, Chronic	5 (10%)	1 (2%)	6 (12%)	5 (10%)
Alveolar Epithelium, Hyperplasia	3 (6%)	6 (12%)	2 (4%)	5 (10%)
Alveolar Epithelium, Metaplasia, Squamous	1 (2%)			
Alveolus, Infiltration Cellular, Histiocyte	20 (40%)	19 (38%)	22 (44%)	30 (60%)
Bronchiole, Foreign Body		1 (2%)		
Bronchiole, Hyperplasia	1 (2%)			1 (2%)
Bronchiole, Inflammation, Chronic		1 (2%)		
Interstitialium, Fibrosis				1 (2%)
Nose	(49)	(49)	(50)	(50)
Foreign Body	1 (2%)	2 (4%)	3 (6%)	2 (4%)
Inflammation, Suppurative	2 (4%)	5 (10%)	6 (12%)	6 (12%)

TDMS No. 88006 - 03

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: RATS/F 344

P03: INCIDENCE RATES OF NON-NEOPLASTIC LESIONS BY ANATOMIC SITE(a)

ALPHA-METHYLSTYRENE

CAS Number: 98-83-9

Pathologist: RENNE, R.

Date Report Requested: 02/02/2006

Time Report Requested: 13:44:41

First Dose M/F: 08/06/01 / 08/06/01

Lab: BNW

FISCHER 344 RATS FEMALE	CONTROL	100 PPM	300 PPM	1000 PPM
Inflammation, Chronic				1 (2%)
Glands, Dilatation			2 (4%)	
Goblet Cell, Hyperplasia	1 (2%)	1 (2%)	3 (6%)	3 (6%)
Nasolacrimal Duct, Inflammation, Suppurative	1 (2%)	1 (2%)	4 (8%)	2 (4%)
Olfactory Epithelium, Degeneration	1 (2%)	1 (2%)	7 (14%)	24 (48%)
Olfactory Epithelium, Degeneration, Hyaline	4 (8%)	8 (16%)	6 (12%)	4 (8%)
Olfactory Epithelium, Hyperplasia, Basal Cell		14 (29%)	30 (60%)	49 (98%)
Olfactory Epithelium, Metaplasia	1 (2%)			1 (2%)
Respiratory Epithelium, Degeneration, Hyaline	1 (2%)	3 (6%)	2 (4%)	
Respiratory Epithelium, Hyperplasia		1 (2%)	1 (2%)	1 (2%)
Respiratory Epithelium, Metaplasia, Squamous	1 (2%)		2 (4%)	2 (4%)
Pleura	(16)	(13)	(15)	(30)
Inflammation, Chronic	16 (100%)	13 (100%)	15 (100%)	27 (90%)
Mesothelium, Hyperplasia				1 (3%)
SPECIAL SENSES SYSTEM				
Eye	(48)	(49)	(50)	(50)
Atrophy				2 (4%)
Inflammation, Suppurative	1 (2%)			
Anterior Chamber, Hemorrhage				1 (2%)
Lens, Cataract	5 (10%)	1 (2%)	4 (8%)	5 (10%)
Lens, Mineralization			3 (6%)	
Retina, Atrophy	2 (4%)			2 (4%)
Sclera, Metaplasia, Osseous		1 (2%)		
URINARY SYSTEM				
Kidney	(49)	(50)	(50)	(50)
Cyst			1 (2%)	
Infiltration Cellular, Lipocyte			1 (2%)	
Nephropathy	34 (69%)	27 (54%)	35 (70%)	31 (62%)
Capsule, Hemorrhage		1 (2%)		
Cortex, Infarct		1 (2%)		1 (2%)
Cortex, Infarct, Multiple			1 (2%)	

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FISCHER 344 RATS FEMALE	CONTROL	100 PPM	300 PPM	1000 PPM
Papilla, Mineralization	1 (2%)	6 (12%)	8 (16%)	7 (14%)
Pelvis, Transitional Epithelium, Hyperplasia	5 (10%)	3 (6%)		
Pelvis, Transitional Epithelium, Mineralization	31 (63%)	26 (52%)	31 (62%)	16 (32%)
Pelvis, Dilatation		1 (2%)		
Renal Tubule, Degeneration	1 (2%)			
Renal Tubule, Pigmentation				2 (4%)
Ureter	(1)	(0)	(0)	(0)
Transitional Epithelium, Hyperplasia	1 (100%)			
Urinary Bladder	(50)	(50)	(50)	(50)
Serosa, Edema		1 (2%)		
Transitional Epithelium, Hyperplasia		1 (2%)		2 (4%)

*** END OF REPORT ***